<u>REMARKS</u>

Applicant has amended the claims to more particularly point out and distinctly claim the invention. Applicant has amended independent claims 1 and 7 to replace the reference to generating a synthetic recurring record with a reference to identifying a set of non-recurring records. New dependent claims 57-62 are directed to generating a synthetic recurring record. Dependent claims 3, 6, 9, 12, 13-14, 18-19, 22-23, 25, 35-36, 40-41, 44-45, and 44 have been amended to make them consistent with the amendments to independent claims 1 and 7. Minor clarifying amendments have also been made to dependent claims 4-5 and 10-11.

Applicant has amended independent claims 17 and 49 to recite steps similar to those in claims 29-30 and 51-52, which have now been cancelled. Applicant has also amended dependent claim 31 and 53.

Applicant has also amended the specification in response to Examiner's objections.

Applicant appreciatively acknowledges the Examiner indicating the allowability of claims 13-17, 21, 35-39 and 43 if recast as independent claims. Applicant believes, however, that the other pending claims are also allowable for the reasons given below.

The Examiner rejected claim 1 under 25 U.S.C. § 103 as unpatentable over Crozier. The Examiner's rejection is unwarranted. Claim 1 generally relates to synchronizing a "recurring record" of a first database (instances of a recurring

event are stored as one record) with non-recurring records of a second database (instances of the recurring event are stored as multiple records, one for each instance). The basic problem with performing such a synchronization stems from the following: in a typical database, when looking at a non-recurring record on its own, there is no way of determining whether the record stores an instance of a recurring event or not. Hence, the problem becomes how to distinguish between a record which stores an instance of a recurring event and one that does not.

The invention solves this problem. The invention first identifies a set of records of the second database corresponding to the instances of the recurring event (the specification describes various methods of performing such an identification), and then the set of records of the second database is synchronized with the recurring record of the first database.

Crozier shows no recognition of the above problem, and Crozier does not teach or suggest anything about identifying a set of non-recurring records that store instances of a recurring event. The Examiner actually acknowledges that Crozier does not teach the invention, but the Examiner argues:

> In this regard, Crozier further teaches the ability to map a plurality of fields to a single field (or vice-versa), in order to provide consistency in formatting of the fields for synchronization purposes (col. 7, line 61 - col. 8, line 11; col. 9, lines 19-35; col. 11, lines 15-25). It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to modify the system of Crozier, <u>by utilizing the above-noted mapping, taught by Crozier as being used at the "field level" of the database, at a further level (i.e.; "record level") of the database, since fields/records are arbitrary sub-</u>

<u>divisions of data.</u> It would have been within the scope of one having ordinary skill in the art to apply beneficial functionality of one sub-division of data to another sub-division of data for similar purposes, since Crozier further teaches the known method of processing a repeating instruction (i.e.; "recurring" record, as instantly claimed) by expanding it into multiple records (col. 12, lines 60-65; col. 14, lines 12-17). (Emphasis added)

The Examiner's argument is flawed. The Crozier system, even as modified by the Examiner, still does not identify a set of non-recurring records that store instances of a recurring event, as recited in claim 1. In Crozier's system, at the "field level," the software allows the user to specify how the fields of records of one database map into the fields of records of another database. It is possible for a plurality of fields of one database to be mapped into a single field of the other database. But this user-specified mapping teaches nothing about how to identify records that store instances of a recurring event. The Crozier mapping depends on the user specifying fixed relationships between fields, whereas in the invention the relationship between records is identified on the fly by the software. The Examiner appears to assume that the system knows *a priori* which non-recurring records in a database store instances of recurring events and which do not. That is simply not the case.

Claim 7 is similar to claim 1 and is allowable for at least the same reasons.

The Examiner also rejected claim 27 under 35 U.S.C.

§ 103 as being unpatentable over Crozier. This rejection is also unwarranted. Claim 27 relates to grouping records of two databases based on their keyfields and performing subsequent comparisons in those groups. The invention in claim 27 is based on the observation that, when synchronizing databases, it is not necessarily essential to compare fields of a record to fields of another record if the keyfields of the two records do not match. Applicant has discovered that the efficiency of the synchronization process can be increased if the records of the two databases are grouped based on their matching keyfields and subsequent comparisons are performed within those groups. Therefore, instead of each time comparing the fields of a record to fields of all the other records, the record can be compared to only those records which are in the keyfield group to which the record belongs. In this way, the number of comparisons during synchronization is reduced.

The Examiner has recognized that Crozier "does not disclose grouping already compared records in order to facilitate subsequent comparisons for further reconciliation" (emphasis added). However, the Examiner argues:

> It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to modify the system of Crozier, to provide for such grouping, since Crozier does teach performing subsequent comparisons (claim 1), and it would have been within the scope of one having ordinary skill in the art to perform such taught subsequent comparison upon any selected amount of the stored data (i.e. selecting a new grouping, as instantly claimed), based upon system characteristics such as outcome of previous reconciliations and subsequent database usage. (emphasis added)

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But this argument is inconsistent with prevailing law, which requires that the prior art supply the motivation for a person skilled in the art to modify Crozier's teachings in the manner suggested by the Examiner. There is no motivation in Crozier, or elsewhere in the prior art.

Furthermore, even if Crozier were modified in the manner suggested by the Examiner, the resultant modification would not operate in the same manner as the invention. Amended claim 27 teaches three comparison steps:

- a first comparison of the records to group records based on their keyfields,

- a second comparison of the records within one of the groups to determine a correspondence between a record from each of the databases, and

- a third comparison of the records which have been determined to correspond to one another to synchronize them.

At most, Crozier teaches only two comparing steps:

- a first comparison of the records to correspond a record of the first database to a record of the second database, and

- a second comparison of the records which have been determined to correspond to one another to synchronize them.

The Examiner suggests modifying the first comparison step of Crozier's claim 1 to make it the same as the first comparison step of applicant's claim 27. But, even in that case, the Examiner's modified system would still not disclose at least one of the two other comparison steps of claim 27. This is because Crozier does not teach, suggest, or even hint at grouping records based on keyfields, performing a subsequent comparison within

those groups to determine a correspondence between the records, and performing a comparison between the records corresponding to one another in order to synchronize them.

Claim 49 is similar to claim 27 and is therefore allowable for at least the same reasons.

All other claims depend from claims 1, 7, 27, and 49 and are allowable for at least the same reasons.

Applicant submits that all of the claims are now in condition for allowance.

Applicant also requests consideration of references cited in Information Disclosure Statements filed on March 12, 1998, March 27, 1998, and July 1, 1998 and indication of such consideration on PTO Form 1449s in those statements.
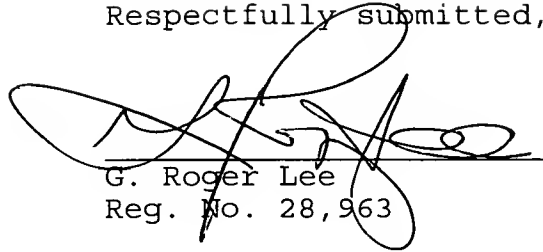
Applicant submits that all of the claims are now in condition for allowance, which action is requested. Applicant is filing with this response an information disclosure statement. Applicant is enclosing a check for filing the IDS and another check in payment of the excess claims fees required by the above amendments.

Please charge any additional fees, or make any credits, to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 10/19/98

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